Subchapter 12. Effluent Standards Applicable to Direct Discharges to Surface Water and Indirect Discharges to Domestic Treatment Works

7:14A-12.1 Purpose and Scope

- (a) This subchapter specifies Federal and State effluent standards which may be incorporated into a permit as an effluent limitation for direct discharges to surface water including those discharges conveyed to surface water via storm sewers and indirect discharges to DTWs.
 - (b) The effluent standards contained in this subchapter are applicable as follows:
 - 1. Regarding stormwater discharges:
 - i. Any discharge of stormwater authorized by a general permit is exempt from the requirements of this subchapter unless such general permit provides otherwise;
 - ii. Any stormwater discharge shall be subject to one or more requirements of this subchapter when the effluent standard in question is achievable by stormwater treatment processes using commercially available technology and is not achievable using other practicable BMPs, and the fact sheet or statement of basis for the draft permit provides the basis for the inclusion of such requirement(s).
 - 2. Regarding discharges from combined sewer overflows:
 - i. Any discharge from a combined sewer overflow authorized by a general permit is exempt from the requirements of this subchapter unless such general permit provides otherwise:
 - ii. Any discharge from a combined sewer overflow shall be subject to one or more requirements of this subchapter when the fact sheet for the draft permit for such discharge provides the basis for the inclusion of such requirement(s).
 - 3. Any discharge other than those identified at (b)1. above shall be exempt from one or more of the requirements in this subchapter as specified in the applicable section.
 - 4. Any discharge of a parameter to which this subchapter applies that is also regulated by another regulatory agency shall meet the more stringent standards of such agency or of this subchapter.

7:14A-12.2 Secondary Treatment Effluent Standards

- (a) The requirements of this section shall apply to all direct discharges to surface water from publicly or privately owned domestic treatment works included in a NJPDES permit.
- (b) The minimum level of effluent quality attainable by secondary treatment in terms of the parameter BOD₅, except as provided for in N.J.A.C. 7:14A-12.3 is as follows:
 - 1. The monthly average value shall not exceed 30 mg/L;
 - 2. The weekly average value shall not exceed 45 mg/L; and
 - 3. The monthly average value for percent removal shall not be less than 85 percent.
- (c) In lieu of the parameter BOD_5 and the levels of the effluent quality specified in (b) above, the parameter $CBOD_5$ may be substituted as follows:
 - 1. The monthly average value shall not exceed 25 mg/L;
 - 2. The weekly average value shall not exceed 40 mg/L; and
 - 3. The monthly average value for percent removal shall not be less than 85 percent.

- (d) Chemical oxygen demand COD or total organic carbon (TOC) may be substituted for BOD5 or CBOD5 when a long-term BOD5 or CBOD5:COD or BOD5 or CBOD5:TOC correlation is demonstrated whereby a permittee submits data which indicates that a different BOD5 or CBOD5:COD or BOD5 or CBOD5:TOC ratio would be more appropriate. In the absence of data to establish a long term correlation, the BOD5:COD ratio shall be assumed to be 1:2 and the BOD5:TOC ratio shall be assumed to be 1:1.
- (e) The minimum level of effluent quality attainable by secondary treatment in terms of the parameter TSS, except as provided in N.J.A.C. 7:14A-12.3 is as follows:
 - 1. The monthly average value shall not exceed 30 mg/L;
 - 2. The weekly average value shall not exceed 45 mg/L; and
 - 3. The monthly average value for percent removal shall not be less than 85 percent.
- (f) The pH shall be maintained within the limits of 6.0 to 9.0 standard units unless the facility demonstrates that:
 - 1. Inorganic chemicals are not added to the wastestream as part of the treatment process; and
 - 2. Contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 or greater than 9.0.

7:14A-12.3 Secondary Treatment Special Considerations

- (a) This section identifies special considerations applicable to effluent limitations for BOD₅ or CBOD₅ and TSS percentage removal or, for facilities receiving waste from certain industrial categories, relief in terms of less stringent BOD₅ or CBOD₅ and TSS concentration levels when the level of treatment required is more stringent than the minimum treatment requirements specified in N.J.A.C. 7:14A-12.2.
- (b) For domestic treatment works receiving less concentrated influent wastewater from combined sewer systems during wet weather, the Department may remove, or impose a less stringent, BOD₅ or CBOD₅ and TSS percent removal requirement than specified in N.J.A.C. 7:14A-12.2(b)3, (c)3 or (e)3. For such treatment works, any attainable percentage removal level shall be defined on a case-by-case basis.
- (c) For domestic treatment works receiving less concentrated influent wastewater from combined sewer systems during dry weather, the Department shall remove, or impose a less stringent, BOD₅ or CBOD₅ and TSS percent removal requirement than specified in N.J.A.C. 7:14A-12.2(b)3, (c)3 or (e)3 if the permittee satisfactorily demonstrates that:
 - 1. The treatment works is consistently meeting, or will consistently meet its permit effluent concentration limits, but the percent removal requirements cannot be met due to less concentrated influent wastewater. In such case an applicant shall demonstrate compliance with effluent limitations consistently achievable through proper operations and maintenance, as defined in N.J.A.C. 7:14A-1.2; and
 - 2. To meet the percent removal requirements, the treatment works would have to achieve significantly more stringent effluent limitations, as defined in N.J.A.C. 7:14A-1.2, than would otherwise be required by the concentration-based standards and associated loadings; and
 - 3. The less concentrated influent wastewater does not result from either excessive infiltration or clear water industrial discharges (for example, non-contact cooling water discharges or other discharges which do not contain pollutants in sufficient quantities to otherwise be of concern) during dry weather periods. If the less concentrated influent wastewater is the result of clear water industrial discharges, then the treatment works must control such discharges in accordance with 40 CFR 403.
- (d) For domestic treatment works receiving less concentrated influent wastewater from a separate sewer system, the Department shall remove, or impose a less stringent, BOD₅ or CBOD₅ and TSS percent removal requirement than specified in N.J.A.C. 7:14A-12.2(b)3, (c)3 or (e)3, if the permittee satisfactorily demonstrates that:

- 1. The treatment works is consistently meeting, or will consistently meet, its permit effluent concentration limits but the percent removal requirements cannot be met due to less concentrated influent wastewater. In such case an applicant shall demonstrate compliance with effluent limitations consistently achievable through proper operations and maintenance as defined in N.J.A.C. 7:14A-1.2; and
- 2. To meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limitations as defined in N.J.A.C. 7:14A-1.2, than would otherwise be required by the concentration-based standards; and
- 3. The less concentrated influent wastewater is not the result of excessive inflow/infiltration.
- (e) For domestic treatment works receiving industrial waste from certain industrial categories, the average monthly values for BOD₅, or CBOD₅ and TSS specified in N.J.A.C. 7:14A-12.2(b)1, (c)1 or (e)1 shall be made less stringent provided that:
 - The permitted discharge of BOD₅ or CBOD₅ and TSS from the domestic treatment works, attributable to the industrial category, would not be greater than that which would be permitted under sections 301(b)(1)(A)(i), 301(b)(2)(E) or 306 of the Federal Act if such industrial category were to discharge directly to surface water; and
 - 2. The flow or loading for BOD₅ or CBOD₅ and TSS introduced to the domestic treatment works by the industrial category exceeds 10 percent of the design flow or loading of the domestic treatment works. When such an adjustment is made, the weekly average value for BOD₅ or CBOD₅ and TSS specified in N.J.A.C. 7:14A-12.2(b)2, (c)2 or (e)2 shall be adjusted proportionately.
- (f) When requesting special consideration for any of the discharges described in (b), (c) and (d) above, an applicant shall submit, as part of the request, all demonstrations specified in the applicable subsection and, in addition, the following:
 - 1. The BOD₅, or CBOD₅, and TSS percent removal requested, as applicable, and whether the request is for seasonal or year round relief;
 - 2. If the discharge is also regulated by another regulatory agency (for example, Delaware River Basin Commission, Interstate Environmental Commission), a brief written statement from that regulatory agency that the agency has no objection to the request for special consideration;
 - 3. At a minimum, 24 consecutive months of influent and effluent data sampled at monthly intervals for BOD5 or CBOD5 and TSS concentration, as well as percentage removal, presented in summary form. Pollutant data for BOD5 or CBOD5 and TSS shall be sampled in accordance with the methods and procedures described in the applicable permit. Data collected during periods of upsets, bypasses, operational errors or other unusual conditions shall be excluded. The data shall contain, at a minimum, the following information:
 - i. Parameter value in mg/L for influent (concentration only) and effluent (concentration and percent removal);
 - ii. Date on which each sample was taken;
 - iii. Effluent flow at time of each sample;
 - iv. Weather conditions at time of each sampling (for example, raining or dry);
 - v. Total population served; and
 - vi. The total amount of flow attributable to major industrial and commercial users contributing greater than 50,000 gallons per day each.

- 4. All permit limit exceedences;
- 5. For combined sewer systems only, the number of combined sewer overflow points and an estimation, with basis, of what percentage of the total collection system is combined; and
- 6. Any other data that the Department deems appropriate to make an accurate determination on the merits of the request.
- (g) When requesting special consideration for the discharge under (e) above, an applicant shall submit all applicable demonstrations specified in (e) 1 and 2, and, in addition, the following:
 - 1. If the discharge is also regulated by another regulatory agency (for example, Delaware River Basin Commission, Interstate Environmental Commission,), a brief written statement from that regulatory agency that the agency has no objection to the request for special consideration;
 - 2. The adjustment requested; and
 - 3. Any other data that the Department deems appropriate to make an accurate determination on the merits of the request.
- (h) The following domestic treatment works are not eligible to request special consideration under this section:
 - 1. Any domestic treatment works which cannot provide satisfactory demonstrations as required pursuant to (b) through (e) above, as applicable; and
 - 2. Any domestic treatment works subject to the requirements of another regulatory agency (for example, Delaware River Basin Commission, Interstate Environmental Commission) that has not received a written statement from that agency that it has no objection to the request.

7:14A-12.4 Minimum BOD₅ Effluent Standards

- (a) For direct discharges to surface water for which (BOD5 or CBOD5) water quality based effluent limitations based upon water quality studies acceptable to the Department have not been developed but are required under N.J.A.C. 7:9B-1.5 or 1.6, the minimum treatment requirements for BOD5 specified in (b) below shall apply except when more stringent effluent limitations are required by:
 - 1. Section 301 or 306 of the Federal Act;
 - 2. The Delaware River Basin Commission or the Interstate Environmental Commission, as applicable.
 - (b) The minimum BOD₅ treatment requirements are as listed in the following table:

| WATERSHED Type | RECEIVING WATER CLASSIFICATION | BOD ₅ MAXIMUM (MONTHLY/WEEKLY AVG.) | DISCHARGE |
|------------------------|---|--|---|
| Atlantic Coastal Plain | FW2, SE1 SC | 15/22.5 mg/L 30/45 mg/l | All Domestic or Domestic combined with industrial |
| Delaware River Basin | Tributaries Classified as FW2, SE1, SE2 Main stem all zones | 25/37.5 mg/L As set forth in the Water Quality Standards for the Delaware River Basin; Resolution 67-7 of the DRBC; April 26, 1967 and subsequent revisions | All All |
| Hackensack River Basin | FW2, SE1, SE2, SE3 | 30/45 mg/L | All |

| Passaic River Basin | FW2 | 25/37.5 mg/L | All |
|------------------------|----------|--------------|-----|
| (including Newark Bay) | SE2, SE3 | 30/45 mg/L | All |
| Wallkill River Basin | FW2 | 15/22.5 mg/L | All |

- (c) In applying the minimum treatment requirements contained in (b) above, the following substitutions may be made:
 - 1. For industrial treatment works, TOC or COD may be substituted for BOD5 when a long-term BOD5:COD or BOD5:TOC correlation has been demonstrated. In the absence of data (to establish a long term correlation), the BOD5:COD ratio shall be assumed to be 1:2 and the BOD5:TOC ratio shall be assumed to be 1:1. If subsequent data are submitted which indicate that a different BOD5:COD or BOD5:TOC ratio would be more appropriate, a written request shall be submitted to the Department; and
 - 2. For industrial or domestic treatment works, CBOD₅ may be substituted for BOD₅ as follows:
 - i. With prior approval of each regulatory agency with jurisdiction over the discharge, when applicable, if the effluent standard for BOD5 is 30/45 mg/L, a CBOD5 effluent standard of 25/40 mg/L, as allowed for in N.J.A.C. 7:14A-12.2(c)1 and 2, may be substituted; or
 - ii. With prior approval of each regulatory agency with jurisdiction over the discharge, when applicable, if the effluent standard for BOD5 is other than 30/45 mg/L, CBOD5 may be substituted for BOD5 when a long term BOD5:CBOD5 correlation has been demonstrated. When a request for a substitution of CBOD5 for BOD5 is made, the applicant shall submit data demonstrating the appropriate BOD5:CBOD5 correlation. The correlation demonstration shall consist of a minimum of 12 BOD5 and CBOD5 analyses of split samples obtained at a frequency of twice per month, subject to the following restrictions:
 - (A) For limitations applicable year round, or for limitations applicable during warm weather (for example, May through October), the samples shall be obtained during the months of May through October.
 - (B) For limitations applicable during cold weather (for example, November through April), the samples shall be obtained during the months of November through April.
 - (C) The monthly and weekly BOD₅ effluent limitations shall be recalculated as CBOD₅ monthly and weekly effluent limitations using the approved correlation factor.
- (d) Direct discharges to surface water from industrial treatment works shall be exempt from the minimum BOD5 effluent standards in (b) above, when:
 - i. Statistically valid data indicate that the maximum projected BOD₅ concentration is consistently below the applicable effluent standard; or
 - ii. The Department determines that, based on wastewater generating activities, no potential exists for the discharge to add BOD₅, COD or TOC.

7:14A-12.5 Disinfection

- (a) All wastewater that could contain pathogenic organisms such as fecal coliform and/or enterococci organisms shall be subject to continuous year round disinfection prior to discharge into surface waters.
 - (b) The State effluent standard for fecal coliform organisms is as follows:

- 1. The monthly geometric mean shall not exceed 200 colonies/100 mL; and
- 2. The weekly geometric mean shall not exceed 400 colonies/100 mL.

7:14A-12.6 Foam

- (a) DSW dischargers are prohibited from discharging foam or causing foaming of the receiving water that:
 - 1. Forms objectionable deposits on the receiving water;
 - 2. Forms floating masses producing a nuisance;
 - 3. Produces objectionable color or odor; or
 - 4. Interferes with a designated use of the waterbody.
- (b) Foaming of the receiving waterbody caused by natural conditions shall not be considered a violation of the standard in (a) above.
- (c) For discharges with submerged outfalls, the Department may take into consideration the location, depth and the dispersion characteristics of the discharge in deciding whether or not to include the provisions of (a) above in the permit.
- 7:14A-12.7 Phosphorus effluent standards

(Reserved.)

- 7:14A-12.8 Oil and grease effluent standards
- (a) The requirements of N.J.A.C. 7:14A-12.8 through 12.10 apply to direct discharges of oil and grease to surface water, and indirect discharges of petroleum based oil and grease to a domestic treatment works, except as specifically exempted in N.J.A.C. 7:14A-12.10. Indirect users shall comply with any local agency standards for nonpetroleum based oil and grease.
 - (b) (Reserved.)
- (c) Direct dischargers to surface waters shall limit the oil and grease effluent content so that such effluent does not:
 - 1. Exhibit a visible sheen;
 - 2. Exceed an average monthly discharge limitation of 10 mg/L; and
 - 3. Exceed a concentration of 15 mg/L in any single sample.
- (d) Indirect users discharging petroleum based oil and grease shall meet the following petroleum hydrocarbon effluent standards except where the control authority has determined that more stringent effluent limitations apply:
 - 1. The average monthly discharge limitation shall not exceed 100 mg/L; and
 - 2. The concentration in any single sample shall not exceed 150 mg/L.
 - (e) (Reserved.)
- (f) If a direct discharger only discharges petroleum based oil and grease, the Department may specify in the permit that compliance with the oil and grease effluent standards in 12.8(c) above may be monitored using the petroleum hydrocarbons analytical method.
- 7:14A-12.9 (Reserved.)
- 7:14A-12.10 Petroleum Hydrocarbon Exemptions
- (a) Indirect users shall be exempted from the petroleum hydrocarbon standards specified at N.J.A.C. 7:14A-12.8(d), provided the following requirements are met:
 - 1. The DTW into which the indirect user discharges submits a request for the exemption indicating it meets all of the following criteria:

- i. The discharge from the domestic treatment works has met a 10 mg/L average and 15 mg/L maximum limitation for oil and grease for each of the reporting periods during the preceding 12 months, as determined by the Department;
- ii. The sludge disposal option currently utilized or planned by the domestic treatment works considers petroleum hydrocarbons a beneficial constituent; and
- iii. The DTW shows that the costs for oil and grease removal at its plant are in proportion to the other operation and maintenance costs of the plant.
- 2. The Department shall have 90 days to review the request for the exemption and make a tentative decision to approve or deny the request. If additional information from the applicant is required, the 90 day period may be extended. The Department shall public notice the tentative decision.

7:14A-12.11 Toxic Effluent Standards

- (a) (Reserved.)
- (b) (Reserved.)
- (c) (Reserved.)
- (d) For discharges to surface water from site remediation projects, the chemical specific toxic pollutant effluent standards are set forth in N.J.A.C. 7:14A-12 Appendix B.
- (e) For new sources, new discharges or expanded direct discharges to surface water, the chemical specific toxic pollutant effluent standards are set forth in N.J.A.C. 7:14A-12 Appendix C.

7:14A-12 Appendix A (Reserved.)

7:14A-12: Appendix B Effluent Standards for Site Remediation Projects

| | | EFFLUENT | STANDARDS | | | |
|----------------------|-----------------|---------------|-----------------|---------------|--|--|
| PARAMETER | FW-2 | WATERS | SC, SE WATERS | | | |
| | monthly average | daily maximum | monthly average | daily maximum | | |
| VOLATILE COMPOUNDS | | | | | | |
| Acrolein | | 100 | | 100 | | |
| Acrylonitrile | | 50 | | 50 | | |
| Benzene | | 7 | 37 | 136 | | |
| Bromoform | | 8.6 | 29 | 58 | | |
| Carbon Tetrachloride | | 6 | | 8.8 | | |
| Chlorobenzene | 15 | 28 | 15 | 28 | | |
| Chlorodibromomethane | | 8.2 | | 14 | | |
| Chloroethane | 104 | 268 | 104 | 268 | | |
| Chloroform | | 11.4 | 21 | 46 | | |
| Dichlorobromomethane | | 5 | | 12 | | |
| 1,1-Dichloroethane | 22 | 59 | 22 | 59 | | |
| 1,2-Dichloroethane | | 3 | 68 | 211 | | |
| 1,1-Dichloroethylene | | 6 | 16 | 25 | | |
| 1,2-Dichloropropane | 153 | 230 | 153 | 230 | | |

| | | | | 1 |
|----------------------------|----|-----|-----|-----|
| 1,3-Dichloropropylene | 10 | 20 | 29 | 44 |
| Ethylbenzene | 32 | 108 | 32 | 108 |
| Methyl Bromide | 20 | 40 | 20 | 40 |
| Methyl Chloride | 86 | 190 | 86 | 190 |
| Methylene Chloride | | 9.4 | 40 | 89 |
| 1,1,2,2-Tetrachloroethane | | 10 | | 10 |
| Tetrachloroethylene | | 16 | 22 | 56 |
| Toluene | 26 | 80 | 26 | 80 |
| 1,2-Trans-Dichloroethylene | 21 | 54 | 21 | 54 |
| 1,1,1-Trichloroethane | 21 | 54 | 21 | 54 |
| 1,1,2-Trichloroethane | | 12 | 21 | 54 |
| Trichloroethylene | | 5.4 | 21 | 54 |
| Vinyl Chloride | | 10 | 104 | 268 |
| ACID COMPOUNDS | | | | |
| 2-Chlorophenol | 31 | 98 | 31 | 98 |
| 2,4-Dichlorophenol | 39 | 112 | 39 | 112 |
| 2,4-Dimethylphenol | 18 | 36 | 18 | 36 |
| 4,6-Dinitro-O-Cresol | | 60 | 78 | 277 |
| 2,4-Dinitrophenol | 71 | 123 | 71 | 123 |
| 2-Nitrophenol | 41 | 69 | 41 | 69 |
| 4-Nitrophenol | 72 | 124 | 72 | 124 |
| Pentachlorophenol | | 30 | | 30 |
| Phenol | 15 | 26 | 15 | 26 |
| 2,4,6-Trichlorophenol | | 20 | | 20 |

^{1 -}for maunfacturers: 10 ug/L daily maximum and 50 ug/L instantaneous maximum for applicators: 10 ug/L daily maximum and 25 ug/L instantaneous maximum

^{2 -} for manufacturers and formulators - discharge prohibited
3 - for manufacturers: 1.5 ug/L daily maximum, 7.5 ug/L instantaneous maximum for formulators: discharge prohibited

| | | EFFLUENT | STANDARDS | | | |
|-------------------------------|-----------------|---------------|-----------------|---------------|--|--|
| PARAMETER | FW-2 | WATERS | SC, SE WATERS | | | |
| | monthly average | daily maximum | monthly average | daily maximum | | |
| BASE NEUTRAL COMPOUNDS | | | _ | | | |
| Anthracene | 22 | 59 | 22 | 59 | | |
| Benzidine | | 50 | | 50 | | |
| Benzo (a) Anthracene | | 10 | | 10 | | |
| Benzo (a) Pyrene | | 20 | | 20 | | |
| Benzo(b)fluoranthene | | 10 | | 10 | | |
| Benzo (k) Fluoranthene | | 20 | | 20 | | |
| Bis (2-Chloroethyl) Ether | | 10 | | 10 | | |
| Bis (2-Chloroisopropyl) Ether | 301 | 757 | 301 | 757 | | |
| Bis (2-Ethylhexyl) Phthalate | | 36 | 59 | 118 | | |
| Butyl Benzyl Phthalate | | 24 | | 24 | | |
| Chrysene | | 20 | | 20 | | |
| Dibenzo (a,h) Anthracene | | 20 | | 20 | | |
| 1,2-Dichlorobenzene | 77 | 163 | 77 | 163 | | |
| 1,3-Dichlorobenzene | 31 | 44 | 31 | 44 | | |
| 1,4-Dichlorobenzene | | 28 | | 28 | | |
| 3,3'-Dichlorobenzidine | | 60 | | 60 | | |
| Diethyl Phthalate | 81 | 203 | 81 | 203 | | |
| Dimethyl Phthalate | 19 | 47 | 19 | 47 | | |
| Di-N-Butyl Phthalate | 27 | 57 | 27 | 57 | | |
| 2,4 Dinitrotoluene | | 10 | | 18.2 | | |
| 2,6-Dinitrotoluene | 255 | 641 | 255 | 641 | | |
| Fluoranthene | 25 | 68 | 25 | 68 | | |
| Fluorene | 22 | 59 | 22 | 59 | | |
| Hexachlorobenzene | | 10 | | 10 | | |
| Hexachlorobutadiene | | 10 | 20 | 49 | | |
| Hexachlorocyclopentadiene | 240 | 480 | | 1800 | | |
| Hexachloroethane | 19 | 38 | 21 | 54 | | |
| Indeno (1,2,3-cd) Pyrene | | 20 | | 20 | | |
| Isophorone | 1 | 20 | | 20 | | |
| Naphthalene | 22 | 59 | 22 | 59 | | |
| Nitrobenzene | 17 | 34 | 27 | 68 | | |

^{1 -}for maunfacturers: 10 ug/L daily maximum and 50 ug/L instantaneous maximum for applicators: 10 ug/L daily maximum and 25 ug/L instantaneous maximum

^{2 -} for manufacturers and formulators - discharge prohibited
3 - for manufacturers: 1.5 ug/L daily maximum, 7.5 ug/L instantaneous maximum for formulators: discharge prohibited

| N-Nitrosodimethylamine | | 20 | | 20 |
|------------------------|----|-----|----|-----|
| N-Nitrosodiphenylamine | | 20 | | 20 |
| Phenanthrene | 22 | 59 | 22 | 59 |
| Pyrene | 25 | 67 | 25 | 67 |
| 1,2,4-Trichlorobenzene | 68 | 140 | 68 | 140 |

^{1 -}for maunfacturers: 10 ug/L daily maximum and 50 ug/L instantaneous maximum for applicators: 10 ug/L daily maximum and 25 ug/L instantaneous maximum

^{2 -} for manufacturers and formulators - discharge prohibited
3 - for manufacturers: 1.5 ug/L daily maximum, 7.5 ug/L instantaneous maximum for formulators: discharge prohibited

| | | EFFLUENT | STANDARDS | | |
|------------------------|-----------------|---------------|-----------------|---------------|--|
| PARAMETER | | WATERS | | WATERS | |
| _ | monthly average | daily maximum | monthly average | daily maximum | |
| PESTICIDES | | | <u> </u> | | |
| Aldrin ² | | 0.04 | | 0.04 | |
| Alpha-BHC | | 0.02 | | 0.02 | |
| Beta-BHC | 0.137 | 0.274 | 0.46 | 0.92 | |
| Gamma-BHC (Lindane) | | 0.08 | | 0.03 | |
| Chlordane | | 0.2 | | 0.2 | |
| 4,4'-DDT ² | | 0.06 | | 0.06 | |
| 4,4'-DDE ² | | 0.04 | | 0.04 | |
| 4,4'-DDD ² | | 0.04 | | 0.04 | |
| Dieldrin ² | | 0.03 | | 0.03 | |
| Alpha-Endosulfan | | 0.02 | | 0.02 | |
| Beta-Endosulfan | | 0.04 | | 0.04 | |
| Endosulfan Sulfate | 0.93 | 1.86 | 2 | 4 | |
| Endrin ³ | | 0.04 | | 0.04 | |
| Endrin Aldehyde | 0.76 | 1.52 | 0.81 | 1.62 | |
| Heptachlor | | 0.02 | | 0.02 | |
| Heptachlor Epoxide | | 0.4 | | 0.4 | |
| Toxaphene ³ | | 1 | | 1 | |
| METALS AND CYANIDE | | | | | |
| Arsenic | 50 | 100 | 50 | 100 | |
| Cadmium | 50 | 100 | 50 | 100 | |
| Chromium | 50 | 100 | 50 | 100 | |
| Copper | 50 | 100 | 50 | 100 | |
| Iron | 1000 | 2000 | 1000 | 2000 | |
| Lead | 50 | 100 | 50 | 100 | |
| Mercury | | 1 | | 1 | |
| Nickel | 72 | 144 | 50 | 100 | |
| Selenium | 50 | 100 | 50 | 100 | |
| Silver | 25 | 50 | 25 | 50 | |
| Zinc | 100 | 200 | 100 | 200 | |
| Cyanide | 100 | 200 | 100 | 200 | |
| DIOXIN | | | | | |

all units in ug/L $_{1}$ -for maunfacturers: 10 ug/L daily maximum and 50 ug/L instantaneous maximum for applicators: 10 ug/L daily maximum and 25 ug/L instantaneous maximum

^{2 -} for manufacturers and formulators - discharge prohibited
3 - for manufacturers: 1.5 ug/L daily maximum, 7.5 ug/L instantaneous maximum for formulators: discharge prohibited

| 2,3,7,8-Tetrachlorodibenzo | | |
|----------------------------|------|------|
| -p-Dioxin | 0.01 | 0.01 |
| PCBs ² | | |
| PCBs-1242, 1254, 1221, | | |
| 1232, 1248, 1260, 1016 | 0.5 | 0.5 |

^{1 -}for maunfacturers: 10 ug/L daily maximum and 50 ug/L instantaneous maximum for applicators: 10 ug/L daily maximum and 25 ug/L instantaneous maximum

^{2 -} for manufacturers and formulators - discharge prohibited
3 - for manufacturers: 1.5 ug/L daily maximum, 7.5 ug/L instantaneous maximum for formulators: discharge prohibited

7:14A-12: Appendix C Effluent Standards for New Sources, New Discharges or Expanded Direct **Discharges**

| | | FLOW < 7Q | | | | FLOW > 7Q | | |
|----------------------------|---------|-----------------|-------------------|-----------------|---------|-----------------|-------------------|--------------|
| PARAMETER | FW2 V | WATERS daily | SE, SC monthly | WATERS daily | FW2 V | WATERS daily | SE, SC monthly | WATERS daily |
| | average | maximum | average | maximum | average | maximum | average | maximum |
| VOLATILE COMPOUNDS | | 1 | Г | T | • | | Г | |
| Acrolein | | 100 | | 100 | | 100 | | 100 |
| Acrylonitrile | | 50 | | 50 | | 50 | | 50 |
| Benzene | | 24 | 37 | 136 | | 7 | 37 | 136 |
| Bromoform | 29 | 58 | 29 | 58 | | 8.6 | 29 | 58 |
| Carbon Tetrachloride | | 6 | 18 | 38 | | 6 | | 8.8 |
| Chlorobenzene | 15 | 28 | 15 | 28 | 15 | 28 | 15 | 28 |
| Chlorodibromomethane | | 14 | | 14 | | 8.2 | | 14 |
| Chloroethane | 104 | 268 | 104 | 268 | 104 | 268 | 104 | 268 |
| Chloroform | 21 | 46 | 21 | 46 | | 11.4 | 21 | 46 |
| Dichlorobromomethane | | 5.4 | | 12 | | 5 | | 12 |
| 1,1-Dichloroethane | 22 | 59 | 22 | 59 | 22 | 59 | 22 | 59 |
| 1,2-Dichloroethane | | 7.6 | 68 | 211 | | 3 | 68 | 211 |
| 1,1-Dichloroethylene | 16 | 11.4 | 16 | 25 | | 6 | 16 | 25 |
| 1,2-Dichloropropane | 153 | 230 | 153 | 230 | 153 | 230 | 153 | 230 |
| 1,3-Dichloropropylene | 29 | 44 | 29 | 44 | | 20 | 29 | 44 |
| Ethylbenzene | 32 | 108 | 32 | 108 | 32 | 108 | 32 | 108 |
| Methyl Bromide | 20 | 40 | 20 | 40 | 20 | 40 | 20 | 40 |
| Methyl Chloride | 86 | 190 | 86 | 190 | 86 | 190 | 86 | 190 |
| Methylene Chloride | 40 | 89 | 40 | 89 | | 9.4 | 40 | 89 |
| 1,1,2,2-Tetrachloroethane | | 10 | | 10 | | 10 | | 10 |
| Tetrachloroethylene | 22 | 56 | 22 | 56 | | 16 | 22 | 56 |
| Toluene | 26 | 80 | 26 | 80 | 26 | 80 | 26 | 80 |
| 1,2-Trans-Dichloroethylene | 21 | 54 | 21 | 54 | 21 | 54 | 21 | 54 |
| 1,1,1-Trichloroethane | 21 | 54 | 21 | 54 | 21 | 54 | 21 | 54 |
| 1,1,2-Trichloroethane | 21 | 54 | 21 | 54 | | 12 | 21 | 54 |
| Trichloroethylene | 21 | 54 | 21 | 54 | | 5.4 | 21 | 54 |
| Vinyl Chloride | 20 | 40 | 104 | 268 | | 10 | 104 | 268 |
| ACID COMPOUNDS | | 1 | | 1 | | | | |
| 2-Chlorophenol | 31 | 98 | 31 | 98 | 31 | 98 | 31 | 98 |

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^{2 -} for manufacturers and formulators - discharge prohibited
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| 2,4-Dichlorophenol | 39 | 112 | 39 | 112 | 39 | 112 | 39 | 112 |
|-----------------------|----|-----|----|-----|----|-----|----|-----|
| 2,4-Dimethylphenol | 18 | 36 | 18 | 36 | 18 | 36 | 18 | 36 |
| 4,6-Dinitro-O-Cresol | 78 | 277 | 78 | 277 | | 60 | 78 | 277 |
| 2,4-Dinitrophenol | 71 | 123 | 71 | 123 | 71 | 123 | 71 | 123 |
| 2-Nitrophenol | 41 | 69 | 41 | 69 | 41 | 69 | 41 | 69 |
| 4-Nitrophenol | 72 | 124 | 72 | 124 | 72 | 124 | 72 | 124 |
| Pentachlorophenol | | 30 | | 30 | | 30 | | 30 |
| Phenol | 15 | 26 | 15 | 26 | 15 | 26 | 15 | 26 |
| 2,4,6-Trichlorophenol | | 42 | 65 | 130 | | 20 | | 20 |

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| | | TLOW < 7Q | | | | TLOW > 7Q | | |
|-------------------------------|--------------------|------------------|-------------------|------------------|--------------------|------------------|-------------------|------------------|
| PARAMETER | | VATERS | SE, SC monthly | WATERS | | VATERS | SE, SC monthly | WATERS |
| | monthly average | daily maximum | montmy average | daily maximum | monthly average | daily maximum | montmy average | daily maximum |
| BASE NEUTRAL COMPOUNDS | | | | | | | | 1 |
| Anthracene | 22 | 59 | 22 | 59 | 22 | 59 | 22 | 59 |
| Benzidine ¹ | | 50 | | 50 | | 50 | | 50 |
| Benzo (a) Anthracene | | 10 | | 10 | | 10 | | 10 |
| Benzo (a) Pyrene | | 20 | | 20 | | 20 | | 20 |
| Benzo(b)fluoranthene | | 10 | | 10 | | 10 | | 10 |
| Benzo (k) Fluoranthene | | 20 | | 20 | | 20 | | 20 |
| Bis (2-Chloroethyl) Ether | | 10 | 14 | 28 | | 10 | | 10 |
| Bis (2-Chloroisopropyl) Ether | 301 | 757 | 301 | 757 | 301 | 757 | 301 | 757 |
| Bis (2-Ethylhexyl) Phthalate | 103 | 279 | 103 | 279 | | 36 | 59 | 118 |
| Butyl Benzyl Phthalate | | 24 | | 24 | | 24 | | 24 |
| Chrysene | | 20 | | 20 | | 20 | | 20 |
| Dibenzo (a,h) Anthracene | | 20 | | 20 | | 20 | | 20 |
| 1,2-Dichlorobenzene | 77 | 163 | 77 | 163 | 77 | 163 | 77 | 163 |
| 1,3-Dichlorobenzene | 31 | 44 | 31 | 44 | 31 | 44 | 31 | 44 |
| 1,4-Dichlorobenzene | | 28 | | 28 | | 28 | | 28 |
| 3,3'-Dichlorobenzidine | | 60 | | 60 | | 60 | | 60 |
| Diethyl Phthalate | 81 | 203 | 81 | 203 | 81 | 203 | 81 | 203 |
| Dimethyl Phthalate | 19 | 47 | 19 | 47 | 19 | 47 | 19 | 47 |
| Di-N-Butyl Phthalate | 27 | 57 | 27 | 57 | 27 | 57 | 27 | 57 |
| 2,4 Dinitrotoluene | | 10 | 91 | 182 | | 10 | | 18.2 |
| 2,6-Dinitrotoluene | 255 | 641 | 255 | 641 | 255 | 641 | 255 | 641 |
| 1,2-Diphenylhydrazine | 0.4 | 0.8 | 5.4 | 10.8 | 0.04 | 0.08 | 0.54 | 1.08 |
| (as Azobenzene) | | | | | | | | |
| Fluoranthene | 25 | 68 | 25 | 68 | 25 | 68 | 25 | 68 |
| Fluorene | 22 | 59 | 22 | 59 | 22 | 59 | 22 | 59 |
| Hexachlorobenzene | | 10 | | 10 | | 10 | | 10 |
| Hexachlorobutadiene | 20 | 49 | 20 | 49 | | 10 | 20 | 49 |
| Hexachlorocyclopentadiene | | 1800 | | 1800 | 240 | 480 | | 1800 |
| Hexachloroethane | 21 | 54 | 21 | 54 | 19 | 38 | 21 | 54 |
| Indeno (1,2,3-cd) Pyrene | | 20 | | 20 | | 20 | | 20 |

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3 - for manufacturers: 0.1 ug/L daily maximum, 0.5 ug/L instantaneous maximum for formulators: discharge prohibited

| Isophorone | | 20 | | 20 | | 20 | | 20 |
|------------------------|----|-----|----|-----|----|-----|----|-----|
| Naphthalene | 22 | 59 | 22 | 59 | 22 | 59 | 22 | 59 |
| Nitrobenzene | 27 | 68 | 27 | 68 | 17 | 34 | 27 | 68 |
| N-Nitrosodimethylamine | | 20 | 73 | 146 | | 20 | | 20 |
| N-Nitrosodiphenylamine | | 20 | | 20 | | 20 | | 20 |
| Phenanthrene | 22 | 59 | 22 | 59 | 22 | 59 | 22 | 59 |
| Pyrene | 25 | 67 | 25 | 67 | 25 | 67 | 25 | 67 |
| 1,2,4-Trichlorobenzene | 68 | 140 | 68 | 140 | 68 | 140 | 68 | 140 |

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| PARAMETER | FACILITY FLOW < 7Q 10 & LARGE TIDAL | | | | FACILITY FLOW > 7Q 10 & SMALL TIDAL | | | | |
|------------------------|-------------------------------------|------------------|------------------|------------------|-------------------------------------|------------------|--------------------|------------------|--|
| | | FW2 WATERS | | SE, SC WATERS | | FW2 WATERS | | SE, SC WATERS | |
| | monthly average | daily maximum | monthly averageg | daily maximum | monthly average | daily maximum | monthly average | daily maximum | |
| PESTICIDES | | | | T. | | | | | |
| Aldrin ² | | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| Alpha-BHC | 0.0391 | 0.0782 | 0.131 | 0.262 | | 0.02 | | 0.026 | |
| Beta-BHC | 1.4 | 2.8 | 4.6 | 9.2 | | 0.28 | 0.46 | 0.92 | |
| Gamma-BHC (Lindane) | | 0.38 | | 0.32 | | 0.037 | | 0.125 | |
| Chlordane | | 0.2 | | 0.2 | | 0.2 | | 0.2 | |
| 4,4'-DDT ² | | 0.06 | | 0.06 | | 0.06 | | 0.06 | |
| 4,4'-DDE ² | | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| 4,4'-DDD ² | | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| Dieldrin ² | | 0.03 | | 0.03 | | 0.03 | | 0.03 | |
| Alpha-Endosulfan | 0.22 | 0.44 | | 0.068 | | 0.092 | | 0.02 | |
| Beta-Endosulfan | 0.22 | 0.44 | | 0.068 | | 0.092 | | 0.02 | |
| Endosulfan Sulfate | 9.3 | 18.6 | 20 | 40 | 0.93 | 1.86 | 2 | 4 | |
| Endrin ³ | | 0.04 | | 0.04 | | 0.04 | | 0.04 | |
| Endrin Aldehyde | 7.6 | 15.2 | 8.1 | 16.2 | | 1.52 | | 1.62 | |
| Heptachlor | | 0.02 | | 0.02 | | 0.02 | | 0.02 | |
| Heptachlor Epoxide | | 0.4 | | 0.4 | | 0.4 | | 0.4 | |
| Toxaphene ³ | | 1 | | 1 | | 1 | | 1 | |
| METALS | | | | | | | | | |
| Antimony | 140 | 280 | | | | 28 | | | |
| Arsenic | | 8 | | 8 | | 8 | | 8 | |
| Cadmium | | 4 | 43 | 86 | | 4 | | 15.2 | |
| Chromium, hexavalent | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | |
| Chromium, total | | 32 | 409 | 818 | | 16 | 41 | 82 | |
| Copper | | 18.4 | | 10 | | 10 | | 10 | |
| Iron | 1500 | 3000 | 1500 | 3000 | 1000 | 2000 | 1500 | 3000 | |
| Lead | | 21 | 69.5 | 139 | | 10 | | 13.9 | |
| Mercury | | 1 | | 1 | | 1 | | 1 | |
| Nickel | 720 | 1440 | 67.9 | 136 | 72 | 144 | | 13.6 | |
| Selenium | 20 | 40 | 300 | 600 | | 10 | | | |
| Silver | | 2.4 | | 4.6 | | 2 | | 2 | |
| Thallium | 17 | 34 | 62.2 | 124.4 | | 10 | | 12.4 | |

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| Zinc | 65 | 130 | 95 | 190 | | 65 | 47.5 | 95 | |
|---------------------------------------|----|------|----|------|--|-------|------|-------|--|
| Cyanide | | 44 | | 40 | | 40 | | 40 | |
| Total PCB's ² | | 0.5 | | 0.5 | | 0.5 | | 0.5 | |
| Dioxin | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo | | | | | | | | | |
| -p-Dioxin | | 0.01 | | 0.01 | | 0.01 | | 0.01 | |
| WHOLE EFFLUENT | | | | | | | | | |
| Chronic IC ₂₅ (% effluent) | | >=50 | | >=50 | | >=100 | | >=100 | |

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- all units in ug/L

 1 -for maunfacturers: 10 ug/L daily maximum and 50 ug/L instantaneous maximum for applicators: 10 ug/L daily maximum and 25 ug/L instantaneous maximum 2 for manufacturers and formulators discharge prohibited
- 3 for manufacturers: 0.1 ug/L daily maximum, 0.5 ug/L instantaneous maximum for formulators: discharge prohibited